



MN2050 'State of the Infrastructure'

APWA

May 13, 2016

Brad Henry, MN2050; Len Kne, U of M

State of the Infrastructure



- How You Can Help MN2050
 - Critique 2015 Survey
 - Social Media Volunteers
 - Comment on Smart City Tool
- MN2050 Update
- Infrastructure Stress Transparency Tool

MN2050 Update



- PWX Presentation:
 - August 28
- 2016 Survey results
 - Formatting - now; On line - July
 - **Help**: Critique 2015 report – this month
- 2015 Survey follow-up
 - **Online**: Charts, Outreach/synergy examples

2015 Charts – Online



Assets Managed by Cities, Counties and State Agencies

	Assets Managed	Road	Bridge	Transit	Traffic	Buildings	Drink Water	Waste Water	Storm Sewer	Storm Pond	Airports	Ports	Railways	Electrical	Solid Waste	Natural Gas	Total
Small Cities	14																
Large Cities	15																
Counties	14																
State Agencies	7																
Totals =																	

TOOLS Used by Cities, Counties and State Agencies

Tools	Road	Bridge	Transit	Traffic	Buildings	Drink Water	Waste Water	Storm Sewer	Storm Pond	Airports	Ports	Railways	Electrical	Solid Waste	Natural Gas	Total
MS Excel																
ESRI GIS database																
Pencil and paper																
Other system																
CAD/AutoCAD																
Orade																
Other GIS system																
Access database																
Arc View																

SYSTEMS Used by Cities, Counties and State Agencies

System	Road	Bridge	Transit	Traffic	Buildings	Drink Water	Waste Water	Storm Sewer	Storm Pond	Airports	Ports	Railways	Electrical	Solid Waste	Natural Gas	Total
No asset management system	52	24	4	64	85	44	47	62	51	6	2	15	14	10	12	492
Cartograph	24	5	0	14	2	13	14	15	12	0	0	0	1	0	0	100
Icon	33	3	0	7	0	4	1	2	1	0	0	0	0	0	0	96
MnDOT SIMS	18	59	1	1	0	0	0	0	0	0	0	1	1	0	0	81
Simple Signs	15	2	0	15	0	0	0	0	0	0	0	1	1	0	0	34
CityWorks	3	0	0	3	2	5	4	5	3	0	0	1	2	0	1	29
Other	5	4	0	2	2	3	1	4	3	2	0	0	2	0	0	28
PubWorks	3	1	0	2	2	1	1	2	1	0	0	0	0	2	0	15
City Services	2	0	0	1	0	3	4	1	1	0	0	0	1	0	0	13
MapFeeder	2	1	0	1	1	2	2	1	1	0	0	0	1	0	0	12

2015 Values - Online

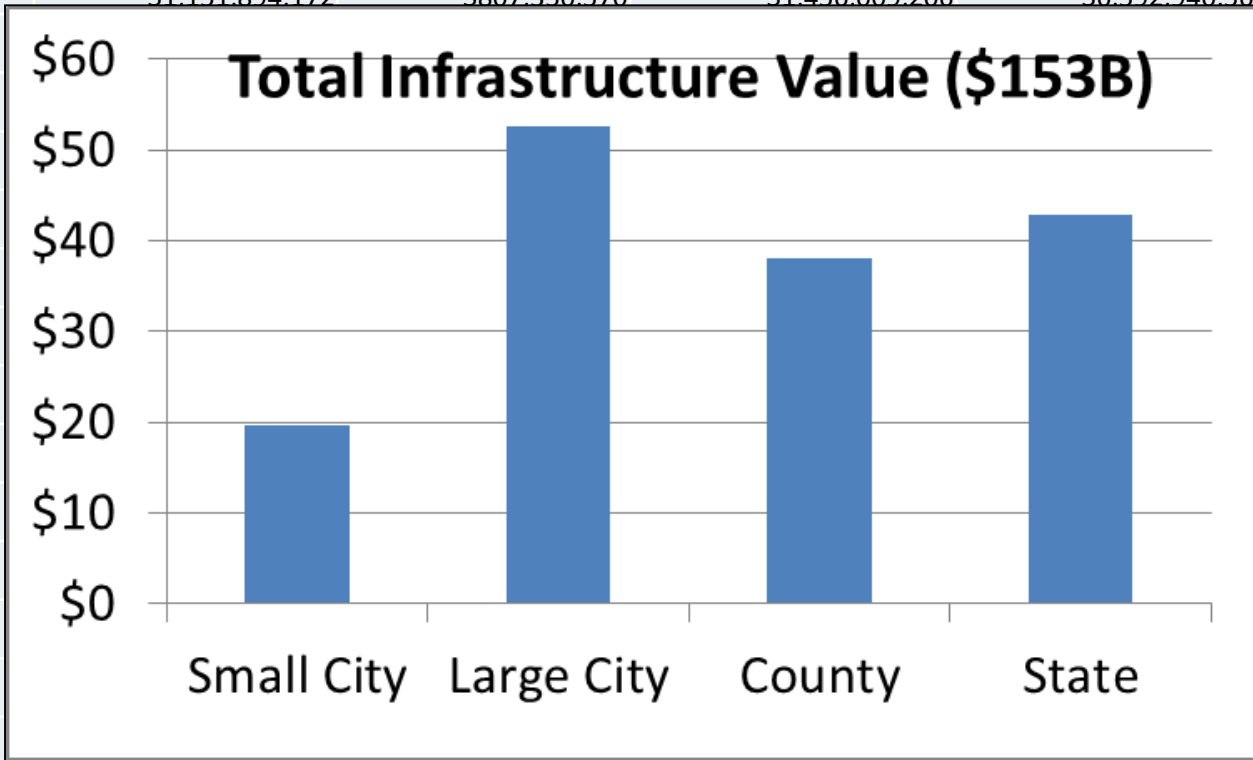


			2015 Values		
	Small City	Large City	County	State	Total
Roads	\$4,174,022,424	\$10,517,476,430	\$27,647,815,260	\$29,338,312,840	\$71,677,626,954
Bridges	\$1,151,894,172	\$807,350,570	\$1,456,009,206	\$6,592,940,562	\$10,008,194,510
Transit	\$0	\$0	\$0	\$0	\$0
Traffic	\$14,168,440	\$138,820,460	\$59,985,398	\$0	\$212,974,298
Buildings	\$7,583,657,510	\$13,724,959,690	\$4,869,723,674	\$501,696,056	\$26,680,036,930
Water	\$1,499,020,952	\$6,279,799,230	\$0	\$0	\$7,778,820,182
Waste Water	\$1,704,463,332	\$4,244,983,540	\$0	\$6,494,782,638	\$12,444,229,510
Storm sewer	\$0	\$2,085,960,070	\$0	\$0	\$2,085,960,070
Storm ponds	\$150,185,464	\$65,757,060	\$5,453,218	\$0	\$221,395,742
Airports	\$1,240,446,922	\$1,344,366,560	\$0	\$0	\$2,584,813,482
Ports	\$0	\$0	\$0	\$0	\$0
Rail	\$0	\$0	\$3,173,772,876	\$0	\$3,173,772,876
Electrical	\$0	\$10,564,967,640	\$0	\$0	\$10,564,967,640
Solid Waste	\$0	\$94,982,420	\$796,169,828	\$0	\$891,152,248
Natural Gas	\$2,056,549,066	\$2,747,183,840	\$0	\$0	\$4,803,732,906
Total	\$19.5B	\$52.6B	\$38.0B	\$42.9B	\$153B

2015 Values - Online



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Online – Paragraph, Contact



- Collaboration and Tool Opportunities:
 - Systems:
 - **Low cost, easy to use-Simple Signs, Rural Water Assn**
 - Cities:
 - Permits: Certified plan; RW permits
 - Gopher State one call:
 - ASCE utility specs: Existing and new (3D); Revise Report Card
 - Sophistication Levels: Large and small cities (Ostrander, Rushford)
 - Counties:
 - Carver County: Shared position,
 - **LRRB – TAMP Project**
 - County-wide: Asset management consortiums
 - State:
 - Smart City project: Interactive map;
 - **Leadership, Peer Exchange (lessons learned)**

Infrastructure Stress Transparency Tool



Minnesota Pollution Control Agency

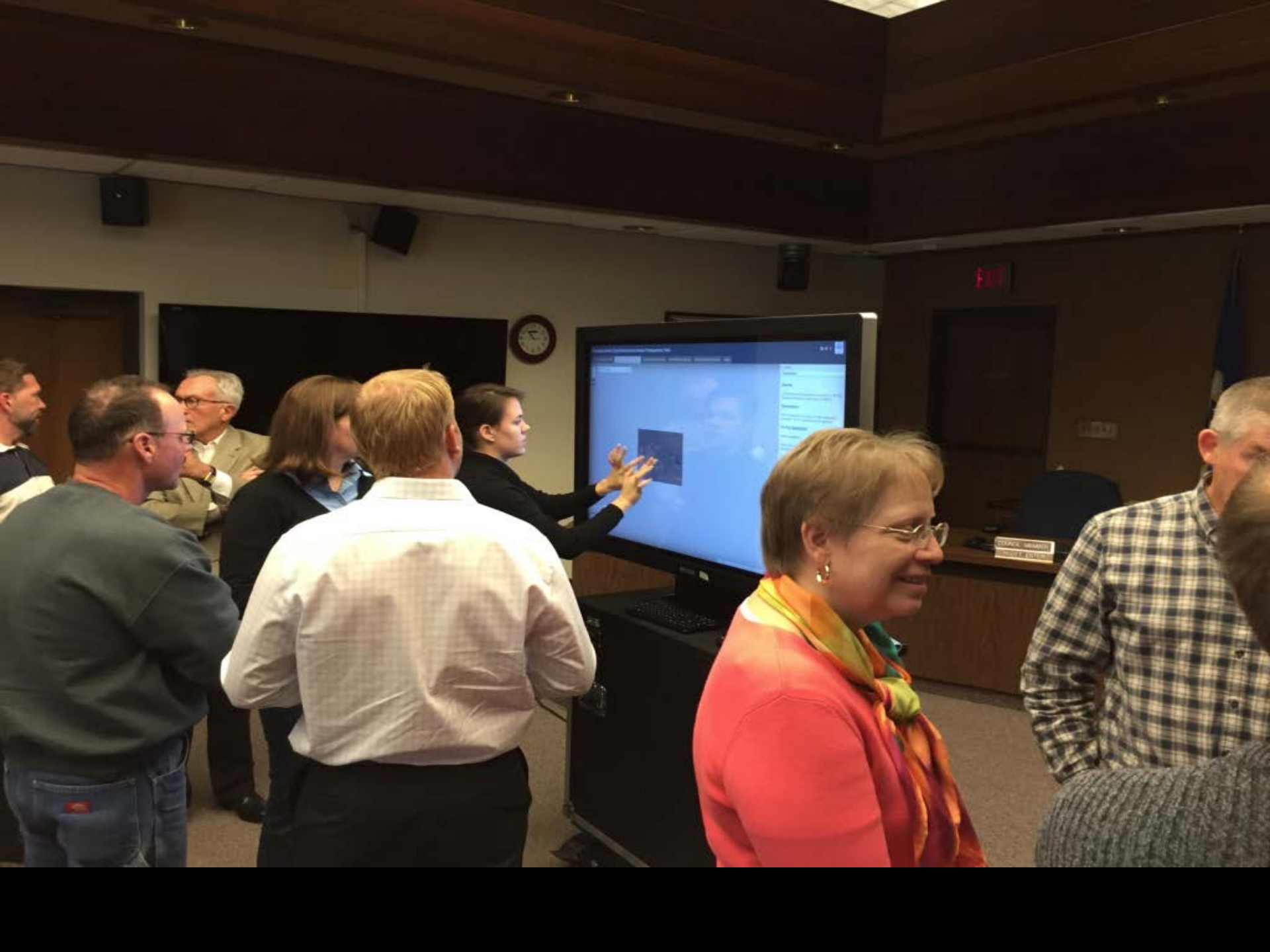


Infrastructure Stress Transparency Tool



- Background
- Reaction to the tool
- Tool
 - Initial data sets
 - Next version
 - (Potential) Use by MN2050
- <https://www.auditor.state.mn.us/default.aspx?page=20160211.001>

Collaborative Geodesign







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